

# METHOD AND MEMORY CONTROLLER FOR ADAPTIVE ROW MANAGEMENT WITHIN A MEMORY SUBSYSTEM

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign applications(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, any foreign applicaiton for patent inventor's or plant breeder's rights certificate(s) or any PCT international application having a filing date before that of the application on which priority is claimed.

\_\_\_\_ Yes \_\_\_\_ No

(Number) (Country) (MM/DD/YYYY)

**Yes**            **No**

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

John W. Henderson, Jr., Reg. No. 26,907; Thomas E. Tyson, Reg. No. 28,543; Robert M. Carwell, Reg. No. 28,499; Jeffrey S. LaBaw, Reg. No. 31,633; Douglas H. Lefevre, Reg. No. 26,193; Casimer K. Salys, Reg. No. 28,900; David A. Mims, Jr., Reg. No. 32,708; Mark E. McBurney, Reg. No. 33,114; Leslie A. Van Leeuwen, Reg. No. 42,196; Christopher A. Hughes, Reg. No. 26,914; John E. Hoel, Reg. No. 26,279; Joseph C. Redmond, Jr., Reg. No. 18,753; Marilyn S. Dawkins, Reg. No. 31,140; Diana L. Roberts, Reg. No. 36,654; Jeffery D. Moy, Reg. No. 39,307, and Andrew M. Harris, Reg. No. 42,638.

Send correspondence to: Andrew M. Harris, Weiss, Moy & Harris, P.C. 4204 North Brown Ave. Scottsdale, AZ 85251-3914, and direct all telephone calls to 706-782-9683.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FULL NAME OF SOLE OR FIRST INVENTOR: Ramakrishnan Rajamony

INVENTORS SIGNATURE: Ramank DATE: September 15<sup>th</sup>, 2003

RESIDENCE: 10137 Brimfield Drive, Austin, TX 78726

CITI ZENSHIP: INDIA

POST OFFICE ADDRESS: Same as above

FULL NAME OF SECOND INVENTOR: Hazim Shafi

INVENTORS SIGNATURE: Hazim Shafi DATE: 9/15/03

RESIDENCE: 1701 Maize Bend Drive, Austin, TX 78727

CITI ZENSHIP: US

POST OFFICE ADDRESS: Same as above

FULL NAME OF THIRD INVENTOR: Robert B. Tremaine

INVENTORS SIGNATURE: \_\_\_\_\_ DATE:

RESIDENCE: 73 Stagecoach Pass, Stormville, NY 12582

CITIZENSHIP: US

POST OFFICE ADDRESS: Same as above.

Docket Number:AUS920030528US1

**DECLARATION AND POWER OF ATTORNEY FOR  
PATENT APPLICATION**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**METHOD AND MEMORY CONTROLLER FOR ADAPTIVE ROW MANAGEMENT  
WITHIN A MEMORY SUBSYSTEM**

the specification of which (check one)

  X   is attached hereto.  
       was filed on  
      as Application Serial No.  
      and was amended on  
                            (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign applications(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, any foreign applicaiton for patent inventor's or plant breeder's rights certificate(s) or any PCT international application having a filing date before that of the application on which priority is claimed.

**Prior Foreign Application(s):**

**Priority Claimed**

\_\_\_\_\_  
(Number)                      (Country)                      (MM/DD/YYYY)

\_\_\_\_ Yes \_\_\_\_ No

**Certified Copy Attached?**

\_\_\_\_ Yes \_\_\_\_ No

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FULL NAME OF SOLE OR FIRST INVENTOR: Ramakrishnan Rajamony

INVENTORS SIGNATURE: \_\_\_\_\_ DATE:

RESIDENCE: 10137 Brimfield Drive, Austin, TX 78726

CITI ZENSHIP: INDIA

POST OFFICE ADDRESS: Same as above

FULL NAME OF SECOND INVENTOR: Hazim Shafi

INVENTORS SIGNATURE: \_\_\_\_\_ DATE:

RESIDENCE: 1701 Maize Bend Drive, Austin, TX 78727

CITI ZENSHIP: US

POST OFFICE ADDRESS: Same as above

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FULL NAME OF THIRD INVENTOR: Robert B. Tremaine

INVENTORS SIGNATURE: Robert B. Tremaine DATE: 9-15-2003

RESIDENCE: 73 Stagecoach Pass, Stormville, NY 12582

CITIZENSHIP: US

POST OFFICE ADDRESS: Same as above.

In place of Form PTO-1595

# RECORDATION FORM COVER SHEET PATENTS

22388 U.S. PTO  
10/666814

To the Assistant Commissioner for Patents: Please record the attached original documents or copy thereof.

**1. Name of conveying party(ies):**

- (1) Ramakrishnan Rajamony  
(2) Hazim Shafi  
(3) Robert B. Tremaine

Additional name(s) of conveying party(ies) attached? \_\_\_ Yes x No

**Execution Date:**

9-15-03  
9-15-03  
9-15-03

**2. Name and address of receiving party(ies):**

International Business Machines Corporation  
New Orchard Road  
Armonk, New York 10504

**3. Nature of conveyance:**

X Assignment \_\_\_ Merger  
\_\_\_ Security Agreement \_\_\_ Change of Name  
\_\_\_ Other \_\_\_\_\_

**4. Application number(s) or patent number(s):**

If this document is being filed together with a new application, the execution date of the application is  
(1) 9-15-03 (2) 9-15-03 (3) 9-15-03

A. Patent Application No.(s) \_\_\_\_\_

B. Patent No.(s) \_\_\_\_\_

**5. Name and address of party to whom correspondence concerning document should be mailed:**

Casimer K. Salys  
IBM Corporation  
Intellectual Property Law  
11400 Burnet Road  
Austin, TX 78758  
(512) 823- 0092

**6. Total number of applications and patents involved: 1****7. Total fee (37 CFR 3.41) \$ 40.00**

7 Enclosed

X Authorized to be charged to deposit account

**8. Deposit account number:**

09-0447

DO NOT USE THIS SPACE

**9. Statement and signature.**

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Casimer K. Salys  
Name of Person Signing

*Casimer K. Salys*  
Signature

Date

9/15/03

Total number of pages including cover sheet: 5

# ASSIGNMENT

Whereas, we,

(1) Ramakrishnan Rajamony  
County of Travis

of Austin  
and State of Texas

(2) Hazim Shafi  
County of Travis

of Austin  
and State of Texas

(3) Robert B. Tremaine  
County of Dutchess

of Stormville  
and State of New York

have invented certain improvement in **METHOD AND MEMORY CONTROLLER FOR  
ADAPTIVE ROW MANAGEMENT WITHIN A MEMORY SUBSYSTEM**

and executed a United States patent application therefore on *(Date Inventor Signed Declaration)*

- (1) 9-15-2003, 2003;  
(2) 9/15/2003, 2003; and (3) \_\_\_\_\_, 2003.

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefore;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, I, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and I request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in said application to IBM, its successors and assigns; and I hereby agree that IBM may apply for foreign Letters Patent on said invention and I will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

(1) Signed at Austin on 9-15-2003, 2003

Ramakrishnan Rajamony  
Ramakrishnan Rajamony



(2) Signed at Austin on September 15<sup>th</sup>, 2003

Hazim Shafi  
Hazim Shafi

(3) Signed at \_\_\_\_\_ on \_\_\_\_\_, 2003

\_\_\_\_\_  
Robert B. Tremaine

IBM DOCKET NO. AUS920030528US1

## ASSIGNMENT

Whereas, we,

(1) Ramakrishnan Rajamony  
County of Travisof Austin  
and State of Texas(2) Hazim Shafi  
County of Travisof Austin  
and State of Texas(3) Robert B. Tremaine  
County of Dutchessof Stormville  
and State of New York

have invented certain improvement in **METHOD AND MEMORY CONTROLLER FOR  
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and executed a United States patent application therefore on *(Date Inventor Signed Declaration)*

(1) \_\_\_\_\_, 2003;  
(2) \_\_\_\_\_, 2003; and (3) SEPTEMBER 15, 2003.

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefore;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, I, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and I request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in said application to IBM, its successors and assigns; and I hereby agree that IBM may apply for foreign Letters Patent on said invention and I will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

(1) Signed at \_\_\_\_\_ on \_\_\_\_\_, 2003

\_\_\_\_\_  
Ramakrishnan Rajamony

IBM DOCKET NO. AUS920030528US1

(2) Signed at \_\_\_\_\_ on \_\_\_\_\_, 2003

\_\_\_\_\_  
Hazim Shafi

(3) Signed at IBM, 1101 KITCHAWAN RD.  
YORKTOWN HEIGHTS, NY on SEPTEMBER 15, 2003

\_\_\_\_\_  
Robert B. Tremaine

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